SONY

3-866-247-**12** (1)

FM Stereo FM-AM Receiver

Operating Instructions

STR-DE535
STR-DE435
STR-SE491

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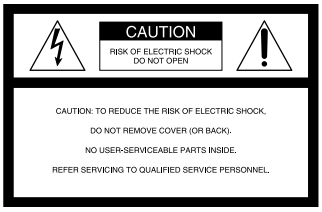
WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

CAUTION

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

Note to CATV system installer

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Owner's record

The model and serial numbers are located on the rear of the unit. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. STR-DE535 / STR-DE435 / STR-SE491

Serial No. _____

Precautions

On safety

- Should any solid object or liquid fall into the cabinet, unplug the receiver and have it checked by qualified personnel before operating it any further.

On power sources

- Before operating the receiver, check that the operating voltage is identical with your local power supply. The operating voltage is indicated on the nameplate at the rear of the receiver.
- The receiver is not disconnected from the AC power source (MAINS) as long as it is connected to the wall outlet, even if the receiver itself has been turned off.
- If you are not going to use the receiver for a long time, be sure to disconnect the receiver from the wall outlet. To disconnect the AC power cord, grasp the plug itself; never pull the cord.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the wall outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Should the AC power cord need to be changed, have it done at a qualified service shop only.

On placement

- Place the receiver in a location with adequate ventilation to prevent heat build-up and prolong the life of the receiver.
- Do not place the receiver near heat sources, or in a place subject to direct sunlight, excessive dust or mechanical shock.
- Do not place anything on top of the cabinet that might block the ventilation holes and cause malfunctions.

On operation

- Before connecting other components, be sure to turn off and unplug the receiver.

On cleaning

- Clean the cabinet, panel and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

For detailed safety precautions, see the "IMPORTANT SAFEGUARDS" leaflet.

If you have any question or problem concerning your receiver, please consult your nearest Sony dealer.

About This Manual

The instructions in this manual are for models STR-DE535, STR-DE435 and STR-SE491. Check your model number by looking at the upper right corner of the front panel or lower right corner of the remote. In this manual, the STR-DE535 is the model used for illustration purposes, any difference in operation is clearly indicated in the text, for example, "STR-DE535 only".

Type of differences

Feature \ Model	DE535	DE435	SE491
PHONO	•		•
VIDEO MONITOR	•	•	
CONTROL A1 II	•		

Conventions

The instructions in this manual describe the controls on the receiver. You can also use the controls on the remote if they have the same or similar names as those on the receiver. For details on the use of your remote, refer to the separate operating instructions supplied with the remote.

- A "Quick Reference Guide" is supplied on page 29.
- The following icons are used in this manual:

Indicates that you can use only the remote to do the task.

Indicates hints and tips for making the task easier.

This receiver contains a Dolby Pro Logic Surround decoder.
Manufactured under license from Dolby Laboratories Licensing Corporation.
"Dolby ," "Pro Logic" and the double-D symbol ⊡⊡ are trademarks of Dolby Laboratories Licensing Corporation.

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Unpacking

Check that you received the following items with the receiver:

- FM wire antenna (1)
- AM loop antenna (1)
- Remote commander (remote) (1)

Model	Remote
STR-DE535	RM-LJ302
STR-DE435 and STR-SE491	RM-PP402

- LR6 (size-AA) batteries (3) (STR-DE535 only)
- R6 (size-AA) bateries (2) (STR-DE435 and STR-SE491 only)
- Operating Instructions of the remote
- Operating Instructions of CONTROL A1 II

Inserting batteries into the remote

Insert the LR6 (STR-DE535) or R6 (STR-DE435 and STR-SE491) (Size AA) batteries with the + and – properly oriented in the battery compartment. When using the remote, point it at the remote sensor (STR-DE535) or (STR-DE435 and STR-SE491) on the receiver. For details, refer to the operating instructions supplied with your remote.

You cannot operate the following buttons on the RM-PP402 remote (STR-DE435 and STR-SE491 only)

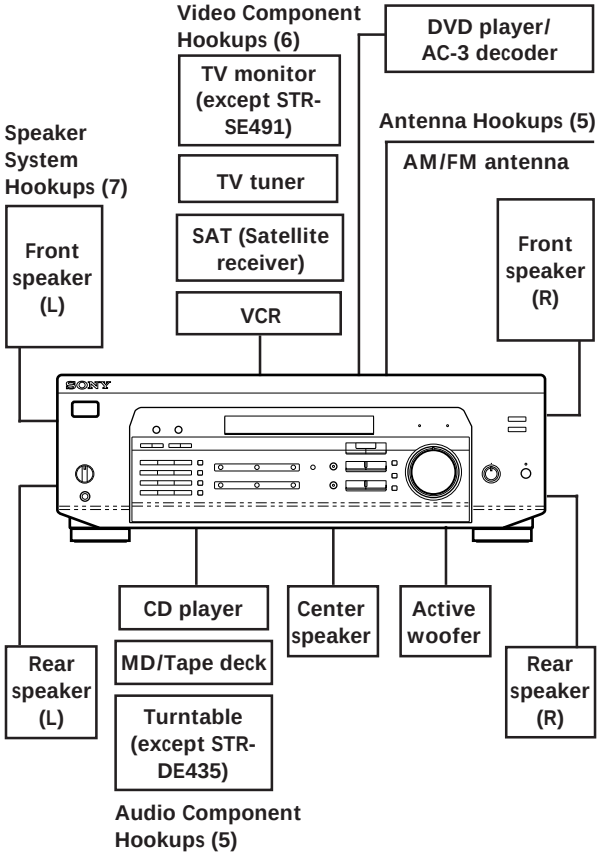
- VIDEO2
- VIDEO3
- DVD
- PHONO (except STR-SE491)
- SOUND FIELD A.F.D.

Notes

- Do not leave the remote in an extremely hot or humid place.
- Do not use a new battery with an old one.
- Do not expose the remote sensor to direct sunlight or lighting apparatuses. Doing so may cause a malfunction.
- If you don't use the remote for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

Hookup Overview

The receiver allows you to connect and control the following audio / video components. Follow the hookup procedures for the components that you want to connect to the receiver on the pages specified. To learn the locations and names of each jack, see "Rear Panel Descriptions" on page 28.



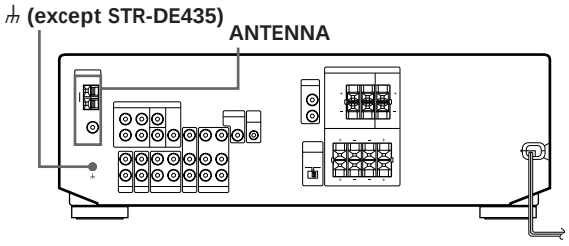
Before you get started

- Turn off the power to all components before making any connections.
- Do not connect the AC power cords until all of the connections are completed.
- Be sure to make connections firmly to avoid hum and noise.
- When connecting an audio / video cable, be sure to match the color-coded pins to the appropriate jacks on the components: Yellow (video) to Yellow; White (left, audio) to White; and Red (right, audio) to Red.

Antenna Hookups

Overview

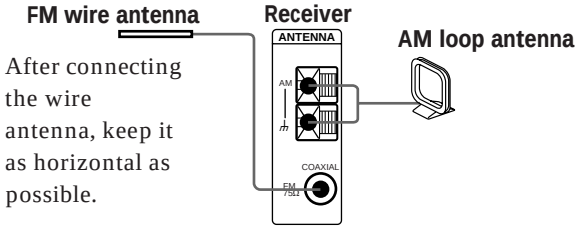
This section describes how to connect AM and FM antennas to the receiver. If you want to receive radio broadcasts with the receiver, complete these connections first, then go to the following pages. For specific locations of the terminals, see the illustration below.



What antennas will I need?

- FM wire antenna (supplied) (1)
- AM loop antenna (supplied) (1)

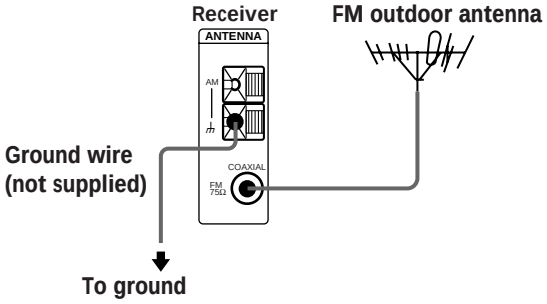
Hookups



After connecting the wire antenna, keep it as horizontal as possible.

If you have poor FM reception

Use a 75-ohm coaxial cable (not supplied) to connect the receiver to an outdoor FM antenna as shown below.



If you have poor AM reception

Connect a 20 to 50 ft. (6 to 15-meter) insulated wire (not supplied) to the AM antenna terminal in addition to the AM loop antenna. Try to extend the wire outdoors and keep it horizontal.

Connecting a ground wire

If you connect the receiver to an outdoor antenna, ground it against lightning as shown in the illustration in the left column. To prevent a gas explosion, do not connect the ground wire to a gas pipe.

Note (except STR-DE435)

Do not use the SIGNAL GND ⏚ terminal for grounding the receiver.

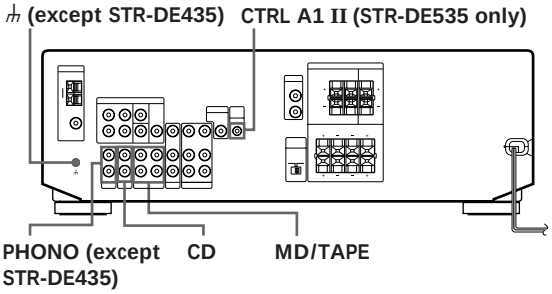
Where do I go next?

If you want to connect other components, go on to the next section. If you're only planning to use the receiver to listen to the radio, go to "Speaker System Hookups" on pages 7 and 8.

Audio Component Hookups

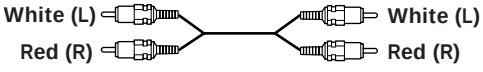
Overview

This section describes how to connect your audio components to the receiver. If you want to use the receiver as an amplifier, complete these connections. For specific locations of the jacks, see the illustration below.



What cables will I need?

- Audio cords (not supplied) (1 for each CD player or turntable; 2 for each MD recorder or tape deck)

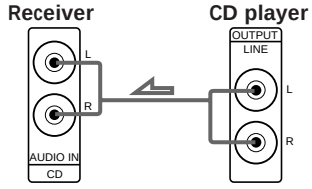


(continued)

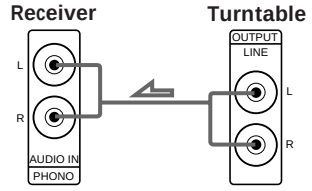
Hookups

The arrow ⟹ indicates signal flow.

CD player

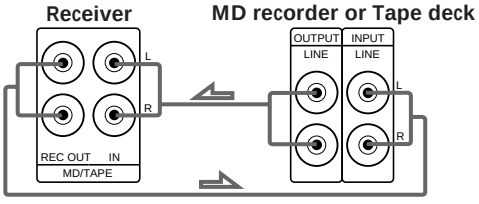


Turntable (except STR-DE435)

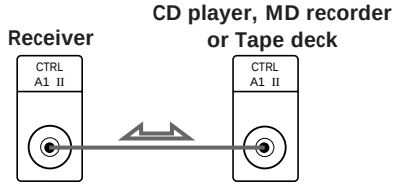


- **If your turntable has an earth lead**
  To prevent hum, connect the earth lead to the ⏚ ground terminal on the receiver.

MD recorder or Tape deck



CONTROL A1 II (STR-DE535 only)



If you have a CONTROL A1 II-compatible Sony CD player, MD recorder or tape deck

Use a CONTROL A1 II cord (not supplied) to connect the CTRL A1 II jack on the CD player, MD recorder or tape deck to the CTRL A1 II jack on the receiver. Refer to the separate manual "CONTROL-A1 II Control System" and the operating instructions supplied with your CD player, MD recorder or tape deck for details.

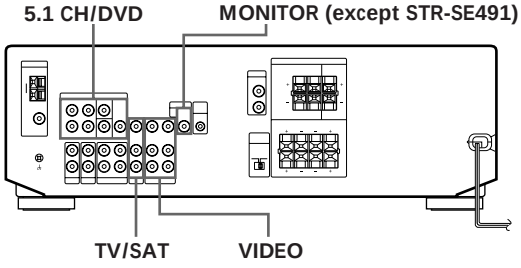
Where do I go next?

Go on to the next section to connect video components to enjoy surround sound when watching/listening to TV programs or video tapes.

Video Component Hookups

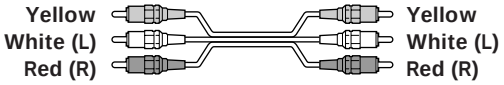
Overview

This section describes how to connect video components to the receiver. For specific locations of the jacks, see the illustration below.



What cables will I need?

- Audio/video cable (not supplied) (1 for each TV tuner or Satellite receiver; 2 for the VCR)

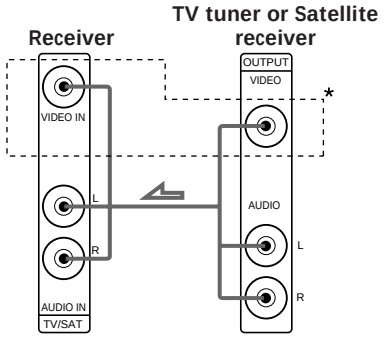


- Video cable (not supplied) (1 for a TV monitor)

Hookups

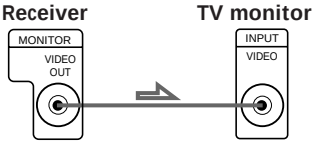
The arrow ⟹ indicates signal flow.

TV/SAT

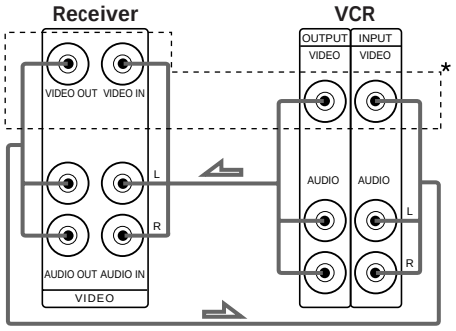


*** except STR-SE491**

MONITOR (except STR-SE491)



VCR



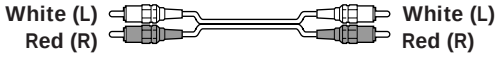
*** except STR-SE491**

Use the function buttons (TV / SAT, CD, MD / TAPE etc.) to select the VIDEO AUDIO OUT signal.
You can record this audio signal by connecting a recording component such as a cassette deck (to the VIDEO AUDIO OUT jack).

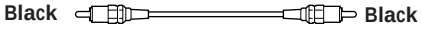
DVD player/AC-3 decoder

What cable will I need?

- Audio cable (not supplied) (1 for each 5.1 CH / DVD FRONT and REAR jacks)

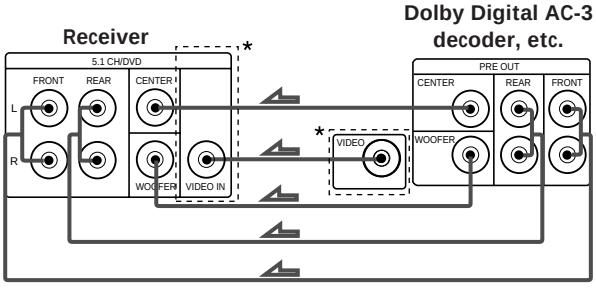


- Monaural audio cable (not supplied) (1 for each 5.1 CH / DVD CENTER and WOOFER jacks)



- Video cable (not supplied) (1 for the 5.1 CH / DVD VIDEO IN jack)

You can play decoded Dolby Digital AC-3 soundtracks through the speakers connected to the amplifier.
If you have a Dolby Digital AC-3 decoder you can amplify a decoded Dolby Digital AC-3 soundtrack with the following connections.



*** STR-DE535 and STR-DE435 only**

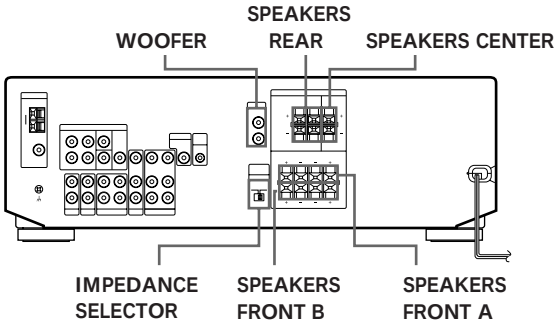
Where do I go next?

Go on to the next section to connect the speakers.

Speaker System Hookups

Overview

This section describes how to connect your speakers to the receiver. To enjoy surround effects, center and rear speakers and an active woofer are required. For specific locations of the terminals, see the illustration below:



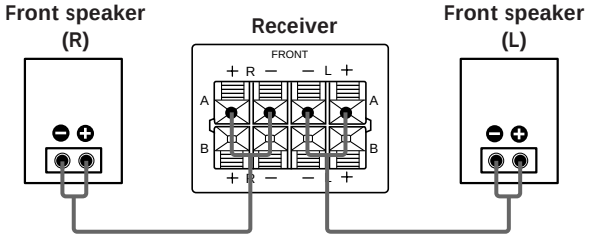
What cords will I need?

Speaker cord (not supplied) (1 for each speaker)

Twist the stripped ends of the cord about 2 / 3 inch (15 mm). Be sure to match the speaker cord to the appropriate terminal on the components: + to + and – to –. If the cords are reversed, the sound will be distorted and will lack bass.

Hookups

Front speakers



(continued)

Selecting the impedance

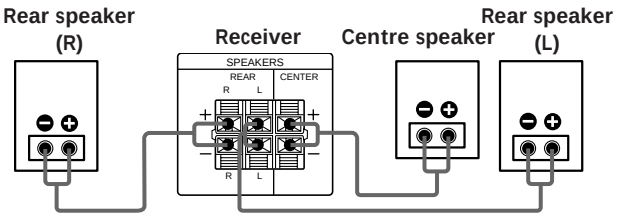
Set the IMPEDANCE SELECTOR for the front speakers as indicated in the table below. Check the instruction manual of your speakers if you're not sure of the impedance. (This information is usually printed on a label on the back of the speaker.)

If the nominal impedance of your speaker is	Set IMPEDANCE SELECTOR to
Between 4 and 8 ohms	4Ω
8 ohms or higher	8Ω

Note

Be sure to connect the front speakers with nominal impedance of 8 ohms or higher if you want to select both sets of front speakers (see page 12).

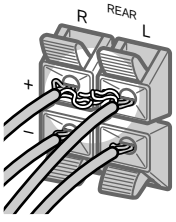
Rear and center speakers



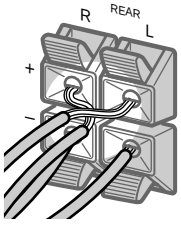
To avoid short-circuiting the speakers

Short-circuiting of the speakers may damage the receiver. To prevent this, make sure to take the following precautions when connecting the speakers. Make sure the stripped ends of each speaker cord does not touch another speaker terminal or the stripped end of another speaker cord.

Examples of poor conditions of the speaker cord:



Stripped speaker cord is touching another speaker terminal



Stripped cords are touching each other due to excessive removal of insulation.

After connecting all the components, speakers, and AC power cord, output a test tone to check that all the speakers are connected correctly. For details on outputting a test tone, refer to "Adjusting the speaker volume" on page 10.

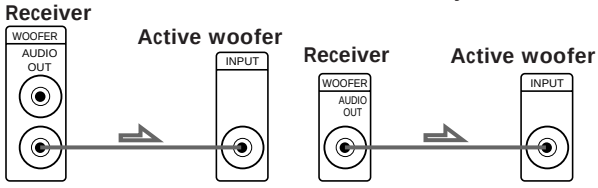
If you have connected rear speakers, be sure to press the 5.1 CH / DVD button and turn off sound field on the receiver before outputting a test tone so that the tone is output individually from the left and right rear speakers.

If no sound is heard from a speaker while outputting a test tone or a test tone is output from a speaker other than the one whose name is currently displayed on the receiver, the speakers may be short-circuited. If this happens, check the speaker connection again.

Active woofer

*** STR-DE535 only**

STR-DE435 and STR-SE491 only



* You can connect the active woofer to either of the two jacks. The remaining jack can be used to connect a second active woofer.

Note

Do not connect any other component.

If you have an additional front speaker system

Connect them to the SPEAKERS FRONT B terminals.

If your TV monitor uses separate speakers

You can connect one of them to the SPEAKERS CENTER terminals for use with Dolby Pro Logic Surround sound (see page 10).

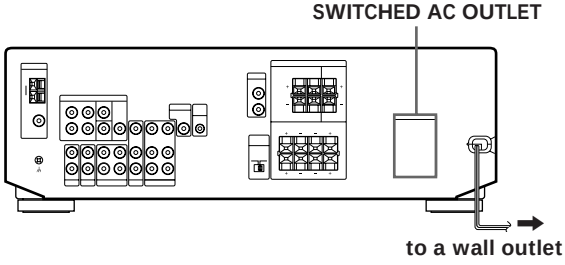
Where do I go next?

To complete your system, go to "AC Hookups" on page 9.

AC Hookups

Connecting the AC power cord

Connect the AC power cord from this receiver and from your audio / video components to a wall outlet. If you connect other audio components to the SWITCHED AC OUTLET on the receiver, the receiver can supply power to the connected components so you can turn on / off the whole system when you turn on / off the receiver.



Caution

Make sure that the power consumption of the component connected to the receiver's AC outlet does not exceed 120 watts. Do not connect high-wattage electrical home appliances such as electric irons, fans, or TVs to this outlet.

Where do I go next?

Before you use the receiver, go to the next section to make sure that all the controls are set to the appropriate positions.

Before You Use Your Receiver

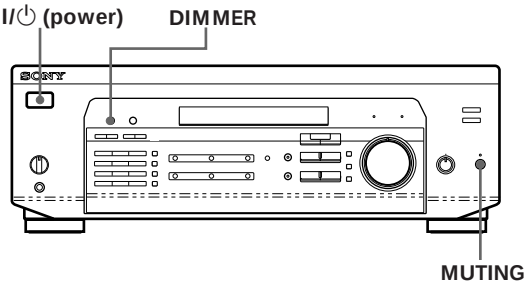
Before turning on the receiver

Make sure that you have:

- Turned MASTER VOLUME to the leftmost position (0).
- Selected the appropriate front speakers (see "Front Panel Parts Description" on page 12).
- Set BALANCE to the center position.

Clearing the receiver's memory

Before you use your receiver for the first time or when you want to clear the receiver's memory, do the procedure below:



1 Turn off the receiver.

2 Press **I** / ⏻ (power) for more than 4 seconds. "ALL CLEAR" appears in the display and the items including the following are reset or cleared:

- All preset stations are reset to their factory settings.
- All sound field parameters are reset to their factory settings.
- All index names (of preset stations and program sources) are cleared.
- All adjustments made with the SET UP button are reset to their factory settings.
- The sound field memorized for each program source and preset station is cleared.

After turning on the receiver

Check the following indicator:

- Press MUTING or MUTING on the remote if the MUTING indicator turns on.
- Press DIMMER to set the display at any of four levels of brightness.

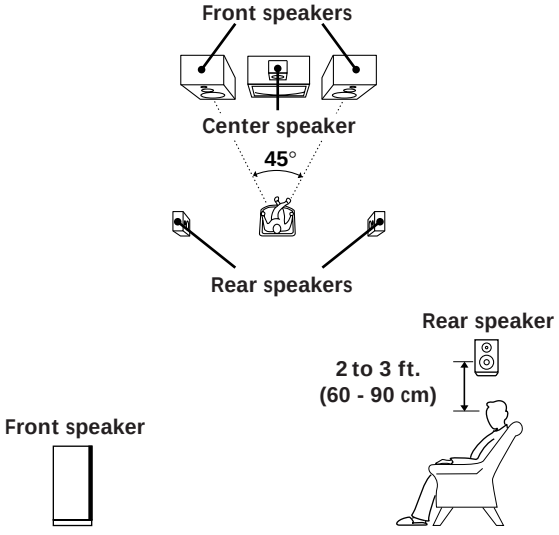
Dolby Surround Setup

Dolby Pro Logic Surround is a system for decoding Dolby Surround sound that is standardized for TV programs and movies. By selecting the proper center mode and adjusting the speaker volume, you can reproduce highly precise localization and dynamic panning of sounds of Dolby Surround encoded software.

To obtain the best possible surround effect, you will require at least one additional pair of speakers and / or a center speaker.

Locating the speakers

For optimum Dolby Pro Logic Surround sound, locate your speakers as shown below.



Selecting the center mode

The receiver offers you four center modes: PHANTOM, 3 STEREO, NORMAL, and WIDE. Each mode is designed for a different speaker configuration. Select the mode that best suits the speakers you use.

1 Press SET UP.

2 Press MENU < or > repeatedly until “CTR MODE” (center mode) appears in the display.

3 Use + or – to select the center mode you want. A description of each center mode is as follows:

If you have	Select	So that
Front and rear speakers, but no center speaker	PHANTOM	The sound of the center channel is output from the front speakers
Front and center speakers, but no rear speaker	3 STEREO (3-CH LOGIC)	The sound of the rear channel is output from the front speakers
Front and rear speakers, and a small center speaker	NORMAL	The bass sound of the center channel is output from the front speakers (because a small speaker cannot produce enough bass)
Front and rear speakers, and a center speaker that is equivalent to your front speakers	WIDE	The center channel fully reproduces the entire audio spectrum

Adjusting the speaker volume

The test tone feature lets you set the volume of your rear speakers and / or center speaker to the same level as that of the front speakers to maximize the Dolby Pro Logic Surround effect. (If all of your speakers are equal in performance, you don't have to adjust the speaker volume.)

Using the controls on the remote, you can adjust the volume level from wherever you're listening.

1 Make sure that the centre mode is correctly set (see the table on this page).

2 Press SOUND FIELD ON / OFF to turn on the sound field.

3 Press SOUND FIELD MODE + / – repeatedly to select “PRO LOGIC.”

4 Press TEST TONE on the supplied remote. You will hear a test tone (see next page) from each speaker sequentially.

5 Adjust the volume level so that the volume of the test tone from each speaker sounds the same from where you are listening.
- To adjust the balance of the front right and front left speakers, use the BALANCE control on the front of the main unit.
- To adjust the volume level of the center speaker, press the LEVEL CENTER + / – buttons on the remote.
- To adjust the volume level of the rear speakers, press the LEVEL REAR + / – buttons on the remote.

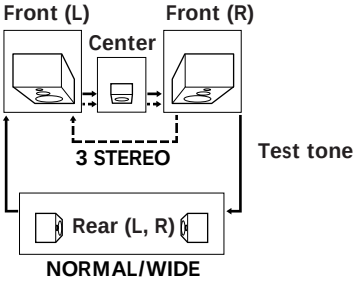
6 Press TEST TONE on the remote again to turn off the test tone.

You can adjust the volume level of all speakers at the same time

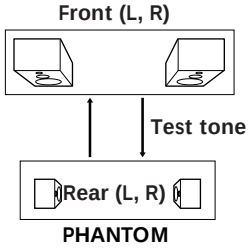
Rotate MASTER VOLUME on the main unit or press MASTER VOLUME + / – on the remote.

What is a test tone?

A test tone is a signal that is produced by the receiver and used to adjust speaker volume. The test tone is output from speakers in the following two ways:
- **When NORMAL, WIDE, or 3 STEREO mode is selected**
  The test tone is output from the front L (left), center, front R (right), and rear speakers (except for 3 STEREO mode) in succession.



- **When PHANTOM mode is selected**
  The test tone is output from the front and the rear speakers alternately.



See the table on page 20 for information on the output of the test tone for sound fields other than PRO LOGIC.

Increasing the output level of the rear speaker by 5dB

The adjustment range of the rear speakers is preset from –15 to + 10, but you can shift the range up 5 levels (– 10 to + 15).

1 Press SET UP.

2 Press MENU < or > repeatedly until “REAR GAIN” appears in the display.

3 Press + or – to select “GAIN UP”.

Note

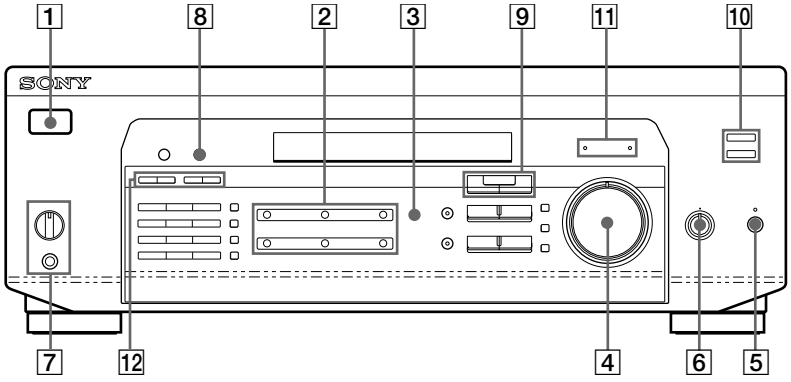
The value for the rear level remain fixed at -15 to +10 in the display, but you will be able to hear the diffrence in the actual output.

To restore the normal output level

Repeat the procedure above, selecting “GAIN NORM” in step 2.

Front Panel Parts Description

This chapter gives you the information on the location and function of the buttons and controls on the front panel and explains basic amplifier operations.



1 I/⏻ switch

Press to turn the receiver on and off.

Note

Before you turn on the receiver, make sure that you have turned the MASTER VOLUME control to the leftmost position to avoid damaging your speakers.

2 Function buttons

Press to select the component you want to use.

To listen to or watch	Press
Video tapes	VIDEO
TV programs or Satellite receiver	TV/SAT
MiniDiscs or audio tapes	MD/TAPE
Compact discs (CD)	CD
Radio programs	TUNER
Records	PHONO (except STR-DE435)
DVD player/AC-3 decoder	5.1 CH/DVD

After selecting the component, turn on the component you selected and play the program source.

3 5.1 CH/DVD button

Press to select the component connected to the 5.1 CH/DVD jacks. The 5.1 CH/DVD indicator lights up when the component is selected.

4 MASTER VOLUME control

After turning on the component you selected, rotate to adjust the volume.

5 MUTING button

Press to mute the sound. The MUTING indicator lights up when the sound is muted.

6 BALANCE control

Rotate to adjust the balance of the front speakers.

7 SPEAKERS selector

Set according to the front speakers you want to drive.

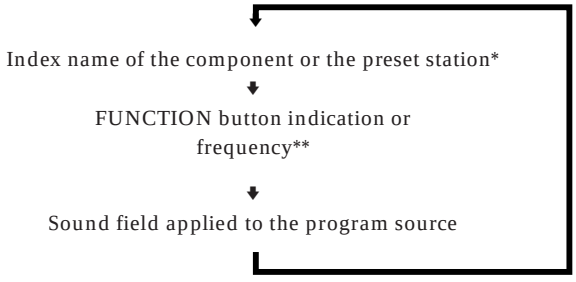
To select	Set to
Speakers connected to the SPEAKERS FRONT A terminals	A
Speakers connected to the SPEAKERS FRONT B terminals	B
Speakers connected to both the SPEAKERS FRONT A and B terminals (parallel connection)	A + B*
No front speaker output	OFF

* *Do not set to A+B when a sound field is turned on. Be sure to connect the front speakers with nominal impedance of 8 ohms or higher if you want to select both sets of front speakers.*

PHONES jack
Connects headphones.

Note
To use the headphones, set the SPEAKERS selector to OFF to output sound to the headphones.

8 DISPLAY button
Press repeatedly to change the information on the display window as follows:



* *Index name appears only when you have assigned one to the component or the preset station (see page 21).*
** *Frequency appears only when the tuner is selected.*

9 Use the following buttons to enjoy surround sound. For details, see "Enjoying Surround Sound" starting from page 17.

SOUND FIELD ON/OFF button
Press to turn the sound field on or off.

SOUND FIELD MODE +/– button
Press to select a sound field from the group you selected.

10 TONE button
Press to turn the tone effect on or off. The TONE indicator lights up while the tone effect is turned on.
Note that if you have adjusted the tone using the MENU < / > and + / – buttons, the adjusted tone will be produced whenever you turn on the tone effect.

BASS BOOST button
Press to increase the bass of the front speakers. The BASS BOOST indicator lights up when the function is turned on.

11 TONE indicator
Lights up while the tone effect is turned on.

BASS BOOST indicator
Lights up while the bass boost is turned on.

When you want to enjoy high quality sound
Do the procedure below to bypass the sound control circuits.

1 Set SOUND FIELD ON / OFF to off.

2 Set TONE to off.

3 Set BASS BOOST to off.

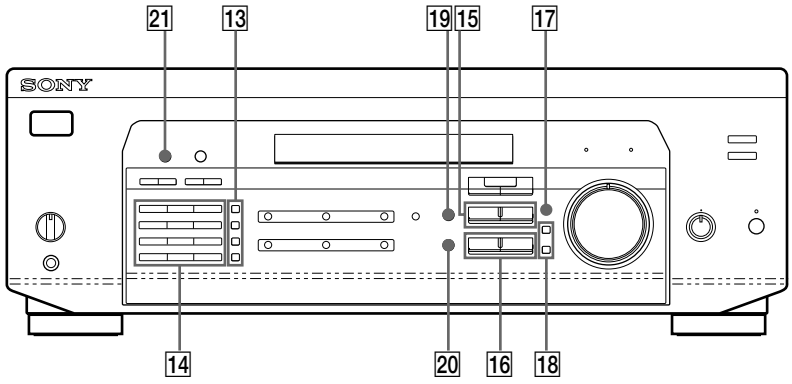
The result will be a two-channel stereo sound output from the front speakers that is highly faithful to the program source.

12 The following buttons operate the built-in tuner. For details, see "Receiving Broadcasts" starting from page 15. Note that these buttons are operable only when the tuner is selected.

PRESET TUNING +/– buttons
Press to scan all preset stations.

TUNING +/– buttons
Press to scan all the available radio stations.

(continued)



13 The following buttons operate the built-in tuner. For details, see “Receiving Broadcasts” starting from page 15.

AM button
Selects the AM band.

FM button
Selects the FM band.

FM MODE button
If “STEREO” flashes in the display and the FM stereo reception is poor, press this button. You will not have the stereo effect but the sound is improved.

MEMORY button
Press to memorize a preset station.

14 The following buttons operate the built-in tuner. For details, see “Receiving Broadcasts” starting from page 15. Note that these buttons are operable only when the tuner is selected.

Numeric buttons (1 to 0)
Inputs the numeric value.

SHIFT button
Selects a memory page for preset stations.

DIRECT button
Press to enter a station's frequency directly.

15 **MENU buttons (</>)**
After pressing the SUR, NAME, BASS / TREBLE or SET UP button, use these buttons to make specific settings (see pages 19 and 21).

16 **+/– buttons**
After pressing MENU buttons, use these buttons to make specific settings (see pages 19 and 21).

17 **SET UP button**
Press this button once, and use MENU </> buttons to select any of the following indications. The selected indication appears in the display and you will be able to make various settings using the cursor buttons.

When you've displayed	You can
CTR MODE	Select any one of the four center modes (page 10)
REAR GAIN	Increase the range of rear speakers by 5 dB (page 11)
AUTO FUNCTION*	Specify whether or not Sony components connected via Control A1 II cables will turn on or off when selected using the function buttons. (page 23)
2WAY SETUP*	Turn on or off response to remote signals sent from the 2 way remote. (page 23)

* STR-DE535 only.

18 Press the following buttons to name preset stations or program sources. For details, see “Indexing Preset Stations and Program Sources” on page 21.

NAME button
Press to enter a name for preset stations and program sources (except 5.1 CH / DVD).

ENTER button
Press to store the names.

19 **SUR button**
Press this button to adjust sound parameters (see page 19).

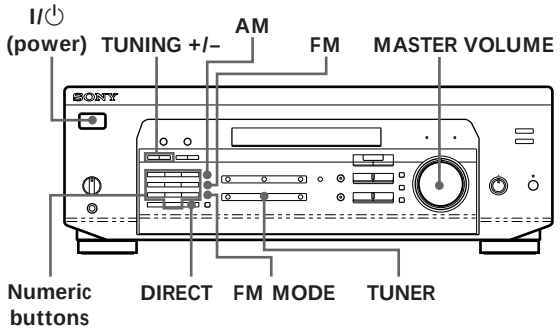
20 **BASS/TREBLE button**
Press this button to adjust the tone (see page 19).

21 **DIMMER button**
Press this button to set the display at any of four levels of brightness.

Receiving Broadcasts

This receiver lets you enter a station's frequency directly by using the numeric buttons (direct tuning). If you don't know the frequency of the station you want, see "Receiving broadcasts by scanning stations (automatic tuning)" on this page.

Before you begin, make sure you have:
- Connected an FM or AM antenna to the receiver as indicated on page 5.
- Selected the appropriate speaker system. (See "Front Panel Parts Description" on page 12.)



1 Press I/⏻ (power) to turn on the receiver.

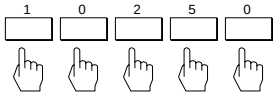
2 Press TUNER.
The last received station is tuned in.

3 Press FM or AM to select FM or AM stations.

4 Press DIRECT.

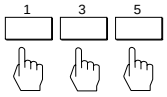
5 Press the numeric buttons to enter the frequency.

Example 1: FM 102.50 MHz

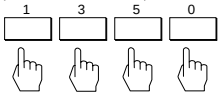


Example 2: AM 1350 kHz

(10 kHz interval)



(9 kHz interval)



6 When you tune in AM stations, adjust the direction of the AM loop antenna for optimum reception.

To receive other stations
Repeat Steps 3 to 5.

If the STEREO indicator remains off
Press FM MODE when an FM stereo broadcast is received.

If an FM stereo program is distorted
The STEREO indicator flashes. Press FM MODE to change to monaural (MONO). You will not have the stereo effect but the distortion will be reduced. To return to stereo mode, press this button again.

If you cannot tune in a station and the entered numbers are flashing
Make sure you've entered the right frequency. If not, press DIRECT and re-enter the frequency you want. If the entered numbers still flash, the frequency is not used in your area.

To watch FM simulcast TV programs
Make sure that you tune in the simulcast program both on the TV (or the VCR) and on the receiver.

If you enter a frequency not covered by the tuning interval
The entered value is automatically rounded up or down to the closest covered value.

Tuning intervals for direct tuning are:
FM: 50 kHz intervals
AM: 9 kHz / 10 kHz intervals (see page 25)

Receiving broadcasts by scanning stations (automatic tuning)

If you don't know the frequency of the radio station you want, you can have the receiver scan all the receivable stations to locate the one you want.

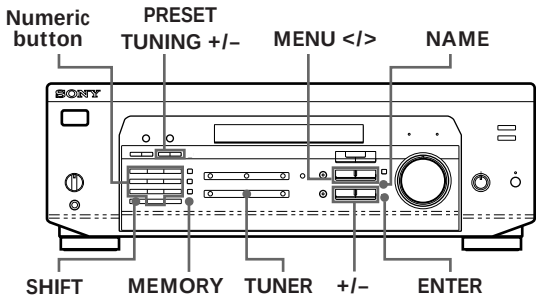
1 Press TUNER.
The last received station is tuned in.

2 Press FM or AM to select FM or AM.

3 Press TUNING + or –.
Press the + button for a higher frequency; press the – button for a lower one. When you tune past either end of the band, the receiver automatically jumps to the opposite end. Every time a station is received, the receiver stops scanning. To continue scanning, press the button again.

Presetting Radio Stations

You'll most likely want to preset the receiver with the radio stations you listen to often so that you don't have to tune in the station every time. The receiver can store a total of 30 FM or AM stations. You can store the stations on preset numbers combining 3 characters (A, B, C) and numbers (0 - 9). For example, you can store a station as preset number A1, B6 or C9, etc.



1 Press TUNER.
The last received station is tuned in.

2 Tune in the station you want.
If you are not familiar with how to tune in a station, see "Receiving Broadcasts" on the previous page.

3 Press MEMORY.
"MEMORY" appears for a few seconds.
Do steps 4 and 5 before "MEMORY" goes out.

4 Press SHIFT to select a character (A, B or C).
Each time you press SHIFT, the letter "A," "B" or "C" appears in the display.

If "MEMORY" disappears, start again from step 3.

5 While MEMORY is displayed, press the number you want to use (0 to 9).

6 Repeat Steps 2 to 5 to preset other stations.

To change a preset station
Preset a new station on the number you want to change.

Note
If the AC power cord is disconnected for about one week, the preset stations will be cleared from the receiver's memory, and you will have to preset the stations again.

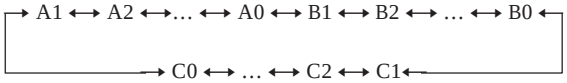
Tuning preset stations (preset tuning)

You can tune directly to a preset station by entering its preset number. If you don't know which stations are preset on which numbers, you can tune by scanning the preset stations.

1 Press TUNER.
The last received station is tuned in.

2 Press SHIFT to select a character (A, B or C), then press the number.
For example, select A and then press 7 to tune in the station preset as A7.

You can tune by scanning the preset stations
First press TUNER and then press PRESET TUNING + or – to select the station you want. Each time you press the buttons, the preset numbers change as follows:



Enjoying Surround Sound

You can take advantage of surround sound simply by selecting one of the pre-programed “sound fields” that your receiver provides. You can enjoy the sound of a movie theater or concert hall in your own home. You can even customize a sound field by adjusting its parameters.

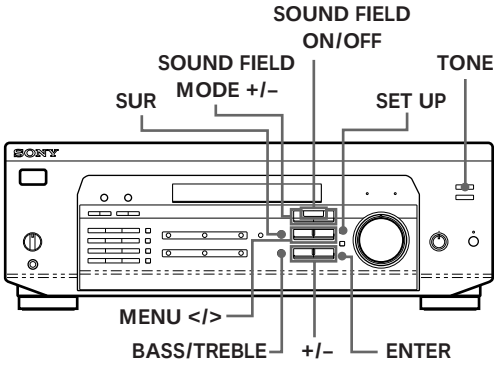
Sound field are classified into three types.

One type is “CINEMA”. The CINEMA type sound fields are designed for enjoying movies recorded on videos or laser discs. Four sound fields are included in the CINEMA type and they are grouped into two types. PRO LOGIC sound field can be used to reproduce plain surround sound. When you select the PRO LOGIC sound field, the receiver obtains full surround sound by using Dolby Pro Logic to decode Dolby Surround encoded software. The surround sound is reproduced in the exact way that the sound engineer of the software intended. Other sound fields in the CINEMA type are designed to add more reverberation effects by incorporating Digital Cinema Sound technology. When you select these sound fields, the receiver adds the reflection and reverberation effects that are typical in movie theaters to the decoded Dolby Pro Logic Surround sound. You can enjoy the sound that you would experience in the movie theater.

Another type is “VIRTUAL”. Virtual mode allows you to enjoy the surround sound environment using a minimum of two front speakers to create non-existent ‘virtual’ speakers. The listener would be able to feel the surround effects using only front speakers.

The third type is “MUSIC”. When a sound field in this type is selected, the receiver adds the reverberation to the normal 2-channel stereo sound. You can apply these sound fields when playing a CD or watching TV programs to obtain the surround effects of concert hall or a jazz club.

To enjoy Dolby Pro Logic Surround sound fully, do the procedure on “Dolby Surround Setup” starting from page 10 to select the center mode and adjust the speaker volume.



Selecting a Sound Field

You can enjoy surround sound simply by selecting one of the pre-programed sound fields according to the program you want to listen to.

1 Press SOUND FIELD ON / OFF to turn on the sound field.
The current sound field is indicated in the display.

2 Press SOUND FIELD MODE + / – repeatedly to select the sound field you want.
See the table on this page for information on each sound field.

The receiver memorizes the last sound field selected for each program source (Sound Field Link)
Whenever you select a program source, the sound field that was last applied is automatically applied again. For example, if you listen to CD with HALL as the sound field, change to different program source, then return to CD, HALL will be applied again. In the case of the tuner, the sound fields for AM or FM band and for all the preset stations are memorized separately.

You can identify Dolby Surround-encoded software by looking at the packaging
Some videos and laser discs, however, may be encoded with Dolby Surround sound even if it's not indicated on the package.

Note
When using sound fields, do not select both speakers (A+B) with the SPEAKERS selector.

Description of sound fields

Type	MODE (sound field)	Effects
CINEMA	PRO LOGIC	Decodes programs processed with Dolby Pro Logic Surround.
	C(inema) STUDIO	Reproduces the sound characteristics of a movie theater. Good for watching standard movies.
	N(ight) THEATER	Adjust the tone for watching a movie at low volume at nighttime.
	MONO MOVIE	Creates a theater-like environment when watching movies with monaural soundtracks.
VIRTUAL	V DOLBY	Uses front speakers to create surround sound effects.
	V SURROUND**	Uses front speakers and center speaker to create surround sound effects.
MUSIC	HALL	Reproduces the acoustics of a rectangular concert hall. Ideal for soft acoustic sounds.
	JAZZ CLUB	Reproduces the acoustics of a jazz club.
	DISCO*	Reproduces the acoustics of a discotheque.
	CHURCH*	Reproduces the acoustics of a stone church
	LIVE HOUSE	Reproduces the acoustics of a 300-seat live house.
	STADIUM*	Reproduces the feeling of a large open-air stadium. Great for sporting events or electric sounds.
	GAME	Obtains maximum audio impact from video game software. Be sure to set the game machine to stereo mode for game software with stereo sound capablity.

* STR-DE535 only.
** When using 5.1 CH / DVD only.

Customizing Sound Fields

By adjusting some of the sound parameters, you can customize sound fields to suit your particular listening situation.

Once you customize a sound field, the changes are stored in memory indefinitely (unless the receiver is unplugged for about one week). You can change a customized sound field any time by making new adjustments to the parameters.

See the table on page 20 for adjustable parameters for each sound field.

To get the most from Dolby Pro Logic Surround sound

Do the procedures “Selecting the center mode” and “Adjusting the speaker volume” on page 10 before you customize a sound field.

Changing the delay time (DELAY) (PRO LOGIC Sound Field only)

You can enhance the Dolby Pro Logic Surround sound even more by delaying the sound output from the rear speakers (delay time). You can select a delay time of 15, 20, or 30 ms. Set a short delay time when the rear speakers are located in a large room or far from where you are listening.

1 Start playing a program source encoded with Dolby Surround sound.

2 Press SUR.

3 Press MENU < / > to select “DELAY xxms.”
The current delay time appears in the display.

4 Press + / – to change the delay time.

Changing the level of effect (EFFECT) (all sound fields except PRO LOGIC)

You can specify the amount of the surround effect (i.e., its overall presence) in six levels.

1 Press SUR.

2 Press MENU < / > to select “EFFECT xx.”
The current effect level appears in the display.

3 Press + / – to change the effect level.

Adjusting the volume of the rear and center speakers (REAR/CENTER)

If you feel the volume of the rear or center speaker is inadequate (even after adjusting the speaker volume for Dolby Pro Logic Surround), do the procedure below to adjust the volume.
Note that the speaker volume adjustment is applied to all sound fields.

1 Press SUR.

2 Press MENU < / > to select “REAR xxdB” or “CENTER xxdB.”

3 Press + / – to adjust the speaker volume.
You can select a volume level of –15 dB to +10 dB in 1-dB steps.

Adjusting the tone (BASS/TREBLE)

Adjust the tone (bass or treble) of the front speakers for optimum sound. You can adjust the tone for each separate sound field.

1 Press BASS / TREBLE.

2 Press MENU < / > to select “BASS xxdB” or “TREBLE xxdB.”

3 Press + / – to adjust the tone level.
You can select a tone level of –10 dB to +10 dB in 2-dB steps.

4 Press TONE so that the TONE indicator lights up.

You can turn off the tone adjustments without erasing them
The tone adjustments are stored separately for each sound field. Press the TONE button to turn the TONE indicator off.

Resetting customized sound fields to the factory settings

1 If the power is on, press I / ⏻ (power) to turn off the power.

2 Hold down SOUND FIELD ON / OFF and press I / ⏻ (power).
“SUR CLEAR” appears in the display and all sound fields are reset at once.

Adjustable parameters for each sound field when selecting program source

Sound field mode	Type	MODE	Parameters					Test tone output
			DELAY	EFFECT	REAR	CENTER	TONE	
Off	—	—					●	No sound
On	CINEMA	PRO LOGIC	●		●[a]	●[b]	●	Depends on center mode (see page 10)
		C STUDIO		●	●[a]	●[b]	●	
		N THEATER		●	●		●	From the front and the rear speakers alternately
		MONO MOVIE		●	●		●	
	VIRTUAL	V DOLBY		●			●	No sound
	MUSIC	HALL		●	●		●	From the front and the rear speakers alternately
		JAZZ CLUB		●	●		●	
		DISCO*		●	●		●	
		CHURCH*		●	●		●	
		LIVE HOUSE		●	●		●	
		STADIUM*		●	●		●	
		GAME		●	●		●	

Adjustable parameters for each sound field when using 5.1 CH/DVD

Sound field mode	Type	MODE	Parameters					Test tone output
			DELAY	EFFECT	REAR	CENTER	TONE	
Off	—	—			●	●	●	In the following order: front (L), center, front (R), rear (R) and rear (L)
On	CINEMA	C STUDIO		●	●	●	●	
		N THEATER		●	●	●	●	
	VIRTUAL	V SURROUND		●		●	●	From the front and the center speakers alternately

* *STR-DE535 only*

a) Adjustable only when the center mode is set to PHANTOM, NORMAL, or WIDE (see page 10).

b) Adjustable only when the center mode is set to 3 STEREO, NORMAL, or WIDE (see page 10).

Note

To adjust the speaker volume using a test tone as described on page 10, select the PRO LOGIC sound field. The test tone output in all other sound fields is used for verifying whether there is output from speakers or not.

Indexing Preset Stations and Program Sources

You can enter a name of up to 8 characters for preset stations (station index) and program sources. These index names (for example, “VHS”) appear in the receiver's display when a station or program source is selected. This function is useful for distinguishing components of the same kind. It is also handy for identifying components connected to jacks meant for another type of component, for example, a second CD player connected to the MD / TAPE jacks.

Notes

- Not more than one name can be entered for each preset station or program source.
- You cannot index components connected to the 5.1 CH / DVD jacks.

1 To index a preset station.
Tune to the preset station you want to name.

To index a program source.
Select the program source (component) to be named, then go to Step 2.

2 Press NAME.
The cursor blinks in the display.

3 Use + or – to select the character you desire.

4 Press MENU < or > to move the cursor into position for the next character or previous character.

5 Repeat Steps 3 and 4 to enter up to 8 characters.

6 Press ENTER to store the names.

If you make a mistake

Press MENU < or > repeatedly so that the character you want to change blinks in the display, then use + or – to select the desired character.

To assign index names to other stations

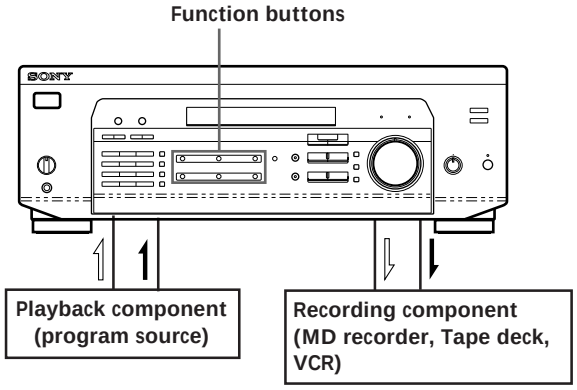
Repeat Steps 2 to 4.

To clear program source name

Press NAME and then press the same program source button. Press ENTER to delete the name (except TUNER).

Recording

This receiver makes it easy to record to and from the components connected to the receiver. You don’t have to connect playback and recording components directly: once you select a program source on the receiver, you can record and edit as you normally would using the controls on each component.
Before you begin, make sure you’ve connected all components properly.



: Audio signal flow
: Video signal flow (except STR-SE491)

Recording on a MiniDisc or audio tape

You can record on a MiniDisc or cassette tape using the receiver. See the instruction manual of your MD recorder or tape deck if you need help.

1 Press one of the function buttons to select the program source.

2 Set the component to be ready for playing.
For example, insert a CD into the CD player.

3 Insert a blank disc or tape into the recording deck and adjust the recording level, if necessary.

4 Start recording on the recording deck and then start playing the component.

Recording on a video tape

You can record from a TV or a satellite receiver using the receiver. You can also add audio from a variety of audio sources when editing a video tape. See your VCR's instruction manual if you need help.

1 Press TV / SAT to select the program source.

2 Set the component to be ready for playing. For example, turn on the TV and TV tuner.

3 Insert a blank video tape into the VCR for recording.

4 Start recording on the VCR.

You can replace audio while editing a video tape

At the point you want to start adding different sound, press another function button (for example, CD) and start playback. The sound from the selected component will be recorded over the original audio.

To resume recording the original sound, press the TV / SAT function button.

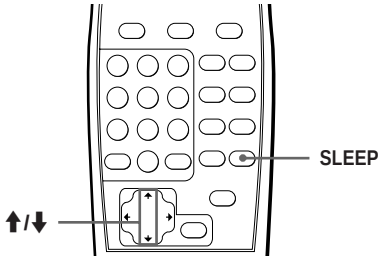
Note

You cannot record the audio and video signal during 5.1 CH / DVD mode.

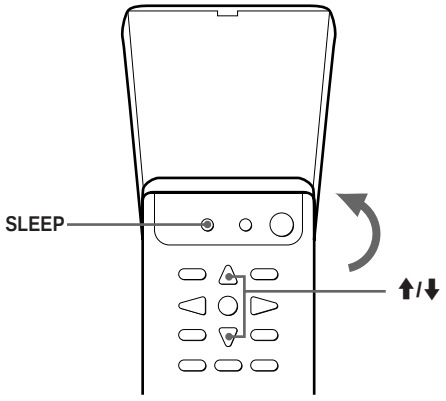
Using the Sleep Timer

Using the controls on the remote, you can set the amplifier to turn off automatically at a time you specify.

STR-DE535 only



STR-DE435 / SE491 only



Press SLEEP on the remote while the power is on. Each time you press SLEEP, the time changes as shown below.

→ 2:00:00 → 1:30:00 → 1:00:00 → 0:30:00 → OFF

The display dims after you specify the time.

You can freely specify the time

Press SLEEP on the remote first, then specify the time you want using the cursor buttons (↑ or ↓). The sleep time changes in 1 minute intervals. You can specify up to 5 hours.

You can check the time remaining before the amplifier turns off

Press SLEEP on the remote. The remaining time appears in the display.

Adjustments Using the SET UP Button

The SET UP button allows you to make the following adjustments.

Adjusting the Control A1 II auto function

Turning on the Control A1 II auto function parameter lets you to turn Sony components connected via Control A1 II cords (see page 6) on automatically when you press the corresponding function button.
Auto function is set to ON by default.

1 Press SET UP.

2 Press MENU < / > to select “AUTO FUNCTION”.

3 Press + / – to select “A-FUNC ON” or “A-FUNC OFF”.

Setting up the 2 way remote

This receiver is shipped from the factory with the 2 way remote control system set to “ON”. Normally, you can use the receiver as is.

However, if you want to use this receiver together with another component that is also compatible with the 2 way remote control system, be sure to perform the following operation to limit response to signals sent from the remote controls.

To use with the TA-E9000ES
Perform the following steps to turn OFF this unit’s 2 way remote control system. Also, be sure the TA-E9000ES is turned on when using this unit.

To use with other components that have the logo
Turn OFF the other component’s 2 way remote control system. For details, refer to the operating instructions supplied with your other components.

To use with CD players CDP-CX260 or CDP-CX88ES
Turn OFF the remote control adaptor switch on the CDP-CX260 or CDP-CX88ES. For details, refer to the operating instructions supplied with the CDP-CX260 or CDP-CX88ES.

Also when using several 2 way remote control system components together, be sure to place them close together in order to enable proper remote operation.

1 Press SET UP.

2 Press MENU < / > to select “2WAY SETUP”.

3 Press + / – to select “2WAY ON” or “2WAY OFF”.

Troubleshooting

If you experience any of the following difficulties while using the receiver, use this troubleshooting guide to help you remedy the problem. Should any problem persist, consult your nearest Sony dealer.

There's no sound or only a very low-level sound is heard.

- ➡ Check that the speakers and components are connected securely.
- ➡ Make sure you select the correct component on the receiver.
- ➡ Make sure you set the SPEAKERS selector correctly (see page 12).
- ➡ Press MUTING or MUTING on the remote if the MUTING indicator turns on.
- ➡ The protective device on the receiver has been activated because of a short circuit ("PROTECTOR" flashes). Turn off the receiver, eliminate the short-circuit problem and turn on the power again.

The left and right sounds are unbalanced or reversed.

- ➡ Check that the speakers and components are connected correctly and securely.
- ➡ Adjust the BALANCE control.

Severe hum or noise is heard.

- ➡ Check that the speakers and components are connected securely.
- ➡ Check that the connecting cords are away from a transformer or motor, and at least 3 meters (10 feet) away from a TV set or fluorescent light.
- ➡ Place your TV away from the audio components.
- ➡ Make sure you connect a ground wire to the antenna ground terminal.
- ➡ The plugs and jacks are dirty. Wipe them with a cloth slightly moistened with alcohol.

No sound is heard from the center speaker.

- ➡ Select the appropriate center mode (see page 10).
- ➡ Adjust the speaker volume appropriately (see page 10).

No sound or only a very low-level sound is heard from the rear speakers.

- ➡ Select the appropriate center mode (see page 10).
- ➡ Adjust the speaker volume appropriately (see page 10).
- ➡ Make sure you turn on the sound field surround mode function.

Radio stations cannot be tuned in.

- ➡ Check that the antennas are connected securely. Adjust the antennas and connect an outdoor antenna if necessary.
- ➡ The signal strength of the stations is too weak (when you tune in with automatic tuning). Use direct tuning.
- ➡ Make sure you set the tuning interval correctly (when you tune in AM stations with automatic tuning) (see pages 15 and 25).
- ➡ No stations have been preset or the preset stations have been cleared (when you tune in with scanning preset stations). Preset the stations (see page 16).

Surround effect cannot be obtained.

- ➡ Make sure you turn on the sound field function.
- ➡ Make sure that the front speakers are connected to the SPEAKERS A terminal.
- ➡ Make sure that SPEAKERS A and B buttons are depressed when two sets of front speakers are used.

No picture or an unclear picture is seen on the TV screen (except STR-SE491).

- ➡ Select the appropriate function on the receiver.
- ➡ Place your TV away from the audio components.

Recording cannot be made.

- ➡ Check that the components are connected correctly.
- ➡ You cannot record audio from a program source connected to 5.1 CH / DVD jacks.

The remote does not function.

- ➡ Point the remote at the remote sensor (STR-DE535) or (STR-DE435 and STR-SE491) on the receiver.
- ➡ Remove the obstacles in the path of the remote and the receiver.
- ➡ Replace both batteries in the remote with new ones if they are weak.
- ➡ Make sure you select the correct function on the remote.

Specifications

Audio power specifications

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 8-ohm load, both channels driven, from 20[a)] - 20,000 Hz, rated 100 watts per channel minimum RMS power, with no more than 0.09 %[b)] total harmonic distortion from 250 milliwatts to rated output.
STR-SE491:
a) 40 Hz
b) 0.5%

Amplifier section

Stereo mode
STR-DE535 / DE435:
(8 ohms at 20 Hz – 20 kHz less than 0.09% total harmonic distortion)
100 W + 100 W

STR-SE491:
(8 ohms at 40 Hz – 20 kHz less than 0.5% total harmonic distortion)
100 W + 100 W

Surround mode and 5.1 CH/DVD mode
STR-DE535 / 435:
(8 ohms at 1 kHz, THD 0.8 %)
Front: 100 W / ch
Center*: (Pro Logic Mode) 100 W
Rear*: 100 W / ch

STR-SE491:
(8 ohms at 1 kHz, THD 0.5%)
Front: 100 W / ch
Center*: 100 W
Rear*: 100 W / ch

Frequency response
PHONO: RIAA equalization curve ± 0.5 dB (except STR-DE435)

TV / SAT, CD, MD / TAPE, VIDEO, 5.1 CH / DVD:
10 Hz - 50 kHz ±1 dB

Inputs

	Sensitivity	Impedance	S/N
PHONO (except STR-DE435)	4 mV	50 kilohms	86 dB
CD, 5.1 CH/ DVD, MD/TAPE, TV/SAT, VIDEO	250 mV	50 kilohms	96 dB

Outputs
MD / TAPE REC OUT:
Voltage: 250 mV,
Impedance: 10 kilohms
VIDEO AUDIO OUT:
Voltage: 250 mV,
Impedance: 10 kilohms
WOOFER:
Voltage: 2 V
Impedance: 1 kilohms
PHONES: Accepts low and high impedance headphones

Muting
Full mute

BASS BOOST
+8 dB at 70 Hz

TONE
±8 dB at 100 Hz and 10 kHz

Tuner section

FM Stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range
87.5 - 108.0 MHz

Antenna terminals
75 ohms, unbalanced

Intermediate frequency
10.7 MHz

Sensitivity
Mono: 18.3 dBf, 4.5 µV
Stereo: 38.3 dBf, 45 µV

Usable sensitivity
11.2 dBf, 2 µV (IHF)

S/N
Mono: 76 dB
Stereo: 70 dB

Harmonic distortion at 1 kHz
Mono: 0.3 %
Stereo: 0.5 %

Separation
45 dB at 1 kHz

Frequency response
30 Hz - 15 kHz $^{+0.5}_{-2}$ dB

Selectivity
60 dB at 400 kHz

AM tuner section

Tuning range
10 kHz interval**
530 - 1710 kHz
9 kHz interval
531 - 1710 kHz

Antenna
Loop antenna

Intermediate frequency
450 kHz

Usable sensitivity
50 dB / m (at 1,000 kHz)

S/N
54 dB (at 50 mV / m)

Harmonic distortion
0.5 % (50 mV / m, 400 Hz)

Selectivity
At 10 kHz: 40 dB
At 9 kHz: 35 dB

** You can change the AM tuning interval between 9 kHz and 10 kHz. After tuning in any AM station, turn off the receiver. Hold down the PRESET TUNING + button and press the I/⏻ (power) button. All preset stations will be erased when you change the interval. To reset the interval, repeat the procedure.

Video section (except STR-SE491)

Inputs
VIDEO, TV / SAT, 5.1 CH / DVD:
1 Vp-p 75 ohms

Outputs
VIDEO, MONITOR:
1 Vp-p 75 ohms

General

System
Tuner section: PLL quartz-locked digital synthesizer system
Preamplifier section: Low-noise NF type equalizer
Power amplifier section: Pure-complementary SEPP

Power requirements
120 V AC, 60 Hz

Power consumption
220 W

AC outlets
STR-DE535 / SE491:
2 switched,
total 120 W / 1A Max
STR-DE435:
1 switched,
total 120 W / 1A Max

Dimensions
430 x 157 x 366 mm (17 x 6 1/8 x 14 5/8 inches)

Mass (Approx.)
STR-DE535:
11.1 kg (24 lb 6 oz)
STR-DE435:
11.0 kg (24 lb 3 oz)
STR-SE491:
11.2 kg (24 lb 9 oz)

(continued)

Supplied accessories

FM wire antenna (1)
AM loop antenna (1)
Remote commander (remote) (1) (see page 4)
LR6 (size-AA) batteries (3) (STR-DE535 only)
R6 (size-AA) batteries (2) (STR-DE435 / SE491 only)

* Depending on the sound field setting and the source, there may be no sound output.

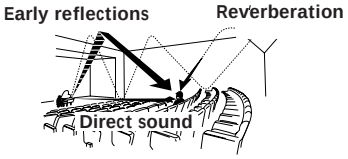
Design and specifications are subject to change without notice.

Glossary

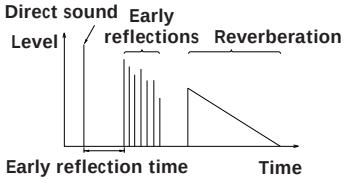
Surround sound

Sound that consists of three elements: direct sound, early reflected sound (early reflections) and reverberative sound (reverberation). The acoustics where you hear the sound affect the way these three sound elements are heard. These sound elements are combined in such a way that you can actually feel the size and the type of a concert hall.

- **Types of sound**



- **Transition of sound from rear speakers**



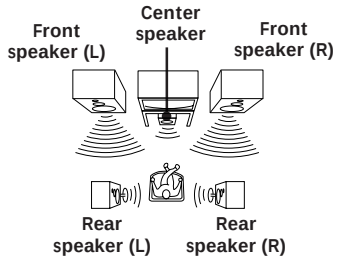
Dolby Pro Logic Surround

As one method of decoding Dolby Surround, Dolby Pro Logic Surround produces four channels from two-channel sound. Compared with the former Dolby Surround system, Dolby Pro Logic Surround reproduces left-to-right panning more naturally and localizes sounds more precisely. To take full advantage of Dolby Pro Logic Surround, you should have one pair of rear speakers and a center speaker. The rear speakers output monaural sound.

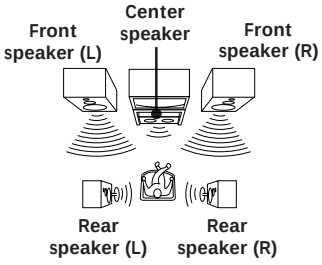
Center mode

Setting of speakers to enhance Dolby Pro Logic Surround mode. To obtain the best possible surround sound, select one of the following four center modes according to your speaker system.

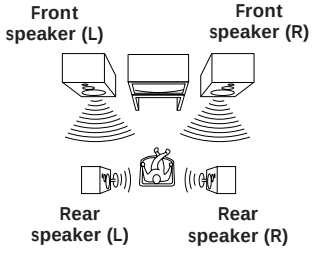
- **NORMAL mode**
  Select NORMAL mode if you have front and rear speakers and a small center speaker. Since a small speaker cannot produce enough bass, the bass sound of the center channel is output from the front speakers.



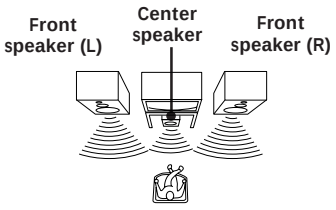
- **WIDE mode**
  Select WIDE mode if you have front and rear speakers and a large center speaker. With the WIDE mode, you can take full advantage of Dolby Surround sound.



- **PHANTOM mode**
  Select PHANTOM mode if you have front and rear speakers but no center speaker. The sound of the center channel is output from the front speakers.



- **3 STEREO mode**
  Select 3 STEREO mode if you have front and center speakers but no rear speaker. The sound of the rear channel is output from the front speakers to let you experience some of the surround sound without using rear speakers.



Delay time

Time lag between the surround sound output from front speakers and rear speakers. By adjusting the delay time of the rear speakers, you can obtain the feeling of presence. Make the delay time longer when you have placed the rear speakers in a small room or close to your listening position, and make it shorter when you have placed them in a large room or apart from your listening position.

Dolby Digital (AC-3)

This sound format for movie theaters is more advanced than Dolby Pro Logic Surround. In this format, the rear speakers output stereo sound with an expanded frequency range and a subwoofer channel for deep bass is independently provided. This format is also called “5.1” because the subwoofer channel is counted as 0.1 channel (since it functions only when a deep bass effect is needed). All six channels in this format are recorded separately to realize superior channel separation. Furthermore, since all the signals are processed digitally, less signal degradation occurs. The name “AC-3” comes from the fact that it is the third audio coding method to be developed by the Dolby Laboratories Licensing Corporation.

5.1 CH/DVD jacks

These jacks are used to input decoded Dolby Digital (AC-3) audio signals, allowing you to enjoy 5.1 channel surround sound. Use these jacks to connect a Dolby Digital (AC-3) decoder or a DVD player with a built-in AC-3 decoder.

Preset station

A radio broadcasting station that is stored in memory of the receiver. Once you “preset” stations, you no longer have to tune in the stations. Each preset station is assigned its own preset number, which lets you tune them in quickly.

A, B

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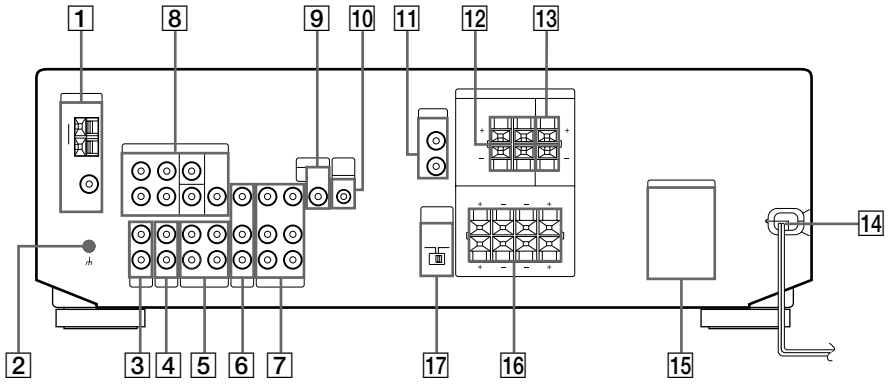
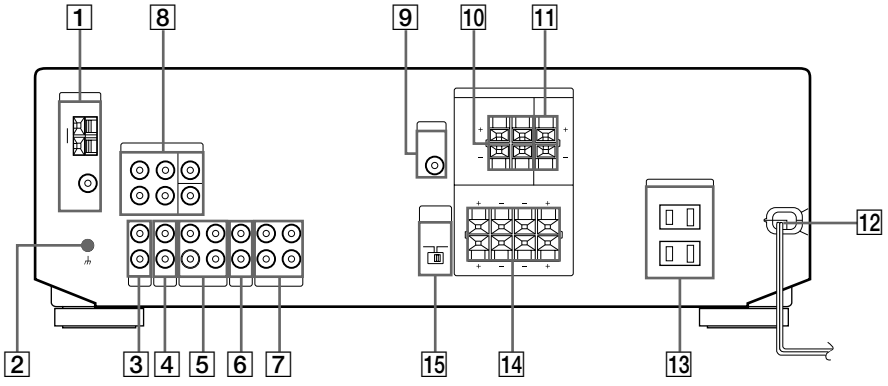
Rear Panel Descriptions

STR-DE535 / DE435 only



1 ANTENNA (AM / FM)
2 ⏚ ground terminal (STR-DE535 only)
3 PHONO (STR-DE535 only)
4 CD
5 MD / TAPE
6 TV / SAT
7 VIDEO
8 5.1 CH / DVD
9 MONITOR
10 CTRL A1 II (STR-DE535 only)
11 WOOFER (STR-DE535–2 pins, STR-DE435– 1 pin)
12 SPEAKERS REAR
13 SPEAKERS CENTER
14 AC power cord
15 SWITCHED AC OUTLET (STR-DE535–2-ganged, STR-DE435–1-ganged)
16 SPEAKERS FRONT (A / B)
17 IMPEDANCE SELECTOR

STR-SE491 only



1 ANTENNA (AM / FM)
2 ⏚ ground terminal
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8 5.1 CH / DVD
9 WOOFER
10 SPEAKERS REAR
11 SPEAKERS CENTER
12 AC power cord
13 SWITCHED AC OUTLET
14 SPEAKERS FRONT (A / B)
15 IMPEDANCE SELECTOR

Receiving Broadcasts (direct tuning)

Example: Receiving FM 102.50 MHz

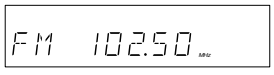
TUNER

FM — Select FM.

DIRECT

1 0 2 5 0

Display



Presetting Radio Stations

Example: Presetting a station as A7

TUNER

Tune in the station you want.

MEMORY

SHIFT — Select A.

7

Selecting a Component

Example 1: Playing a CD

CD

Turn on the CD player.

Start playing.

Example 2: Watching a video tape

VIDEO

Turn on the VCR.

Start playing.

Scanning Radio Stations (automatic tuning)

Example: Scanning FM stations

TUNER

FM — Select FM.

– TUNING + — To continue scanning.

– TUNING +

Receiving Preset Stations

Example: Receiving the station number A7

TUNER

SHIFT — Select A.

7

Scanning Preset Stations

TUNER

PRESET – TUNING +

Using Pre-programed Sound Fields

Example: Watching the video tape of a Dolby Surround-encoded movie

VIDEO

SOUND FIELD

ON/OFF

SOUND FIELD

– MODE + MODE — Select C.STUDIO

Turn on the VCR.

Start playing.

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